Lembadion magnum

(Stokes, 1887) Kahl, 1931

Most likely ID: n.a.

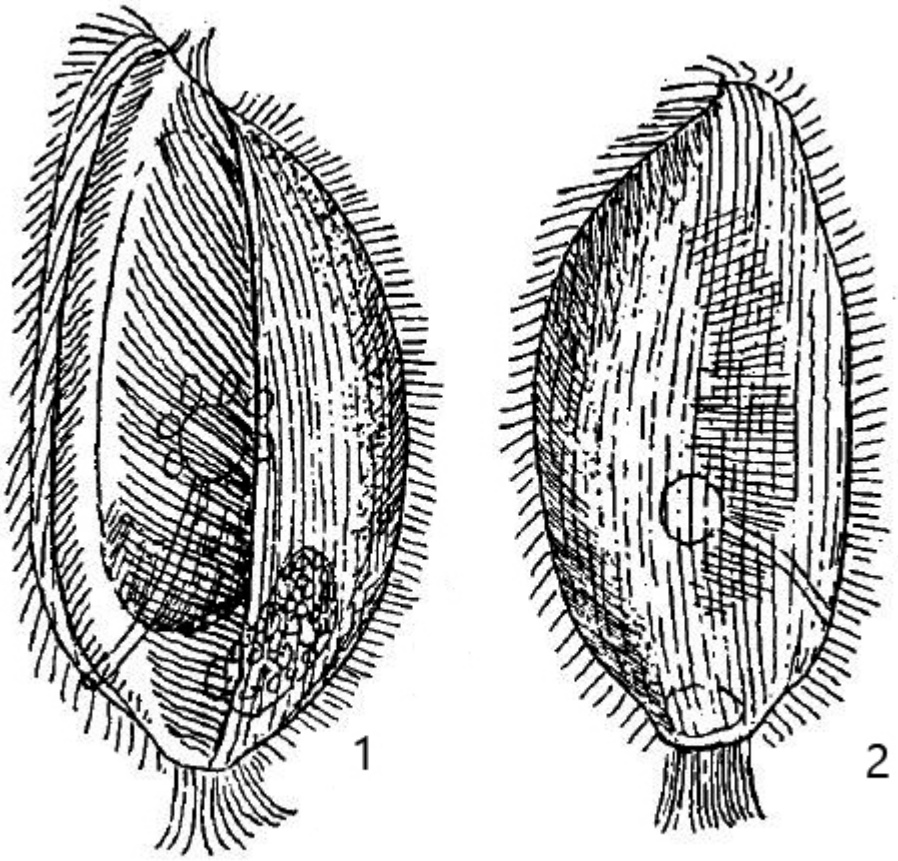
Synonym: n.a.

Sampling location: Ulmisried, Simmelried, Bussenried, Bündtlisried, Purren pond, Mainau pond

Phylogenetic tree: ***Lembadion magnum***

Diagnosis:

- ovoid, with a pointed anterior end
- length 100–200 µm, width 50–100 µm
- very large oral apparatus reaching down to the posterior end
- left side of oral apparatus with adoral membranelle of cilia glued together
- right side of oral apparatus with an undulating membrane (hard to see)
- The pellicle shows a longitudinal striation on the anterior and posterior side
- contractile vacuole dorsally in mid-body, connected via a channel with the ventral excretion porus
- macronucleus kidney-shaped in the posterior third with an adjacent spherical micronucleus
- posterior end with a tuft of cilia



after Kahl (1 = ventral, 2 = dorsal)

Lembadion magnum

Lembadion magnum is present in all of my sites. The species does not seem to have very specific requirements for environmental conditions. One recognizes *Lembadion magnum* immediately by the huge adoral membranelle, which extends over the entire body length (s. figs. 1 a, 2 a and 3 a). This is also a feature distinguishing *Lembadion magnum* safely from *Lembadion lucens* and *Lembadion bullinum*, in which the adoral membranelle extends only to the posterior third of the body. In addition, *Lembadion magnum* is larger and the pellicle is not characterised by a pattern of regularely arranged squares, but has a longitudinal striation (s. fig. 4).

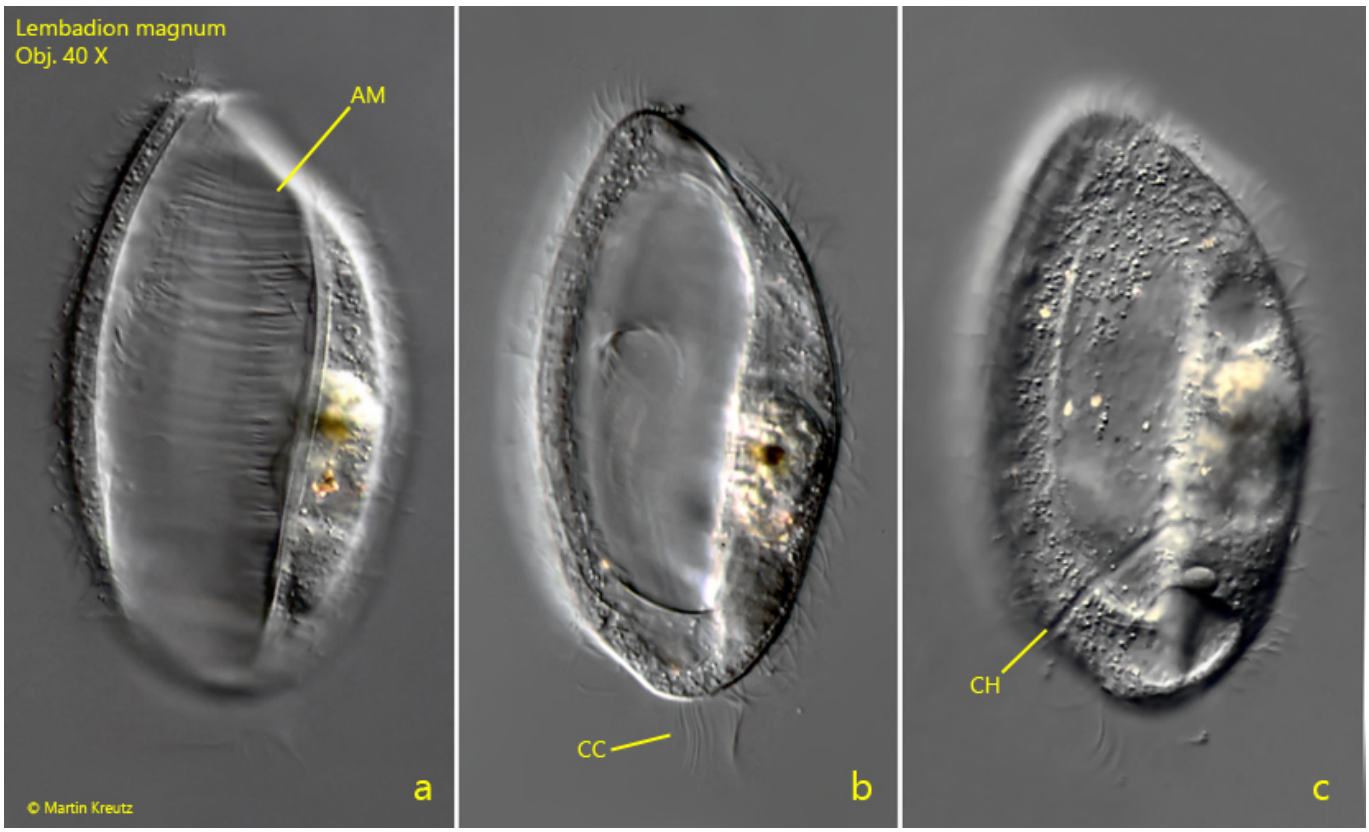


Fig. 1 a-c: *Lembadion magnum.* L = 124 µm. Ventral view of a freely swimming specimen in three focal planes. AM = adorale membranelle, CC = tuft of caudal cilia, CH = channel between contractile vacuole and ventral excretion porus. Obj. 40 X.

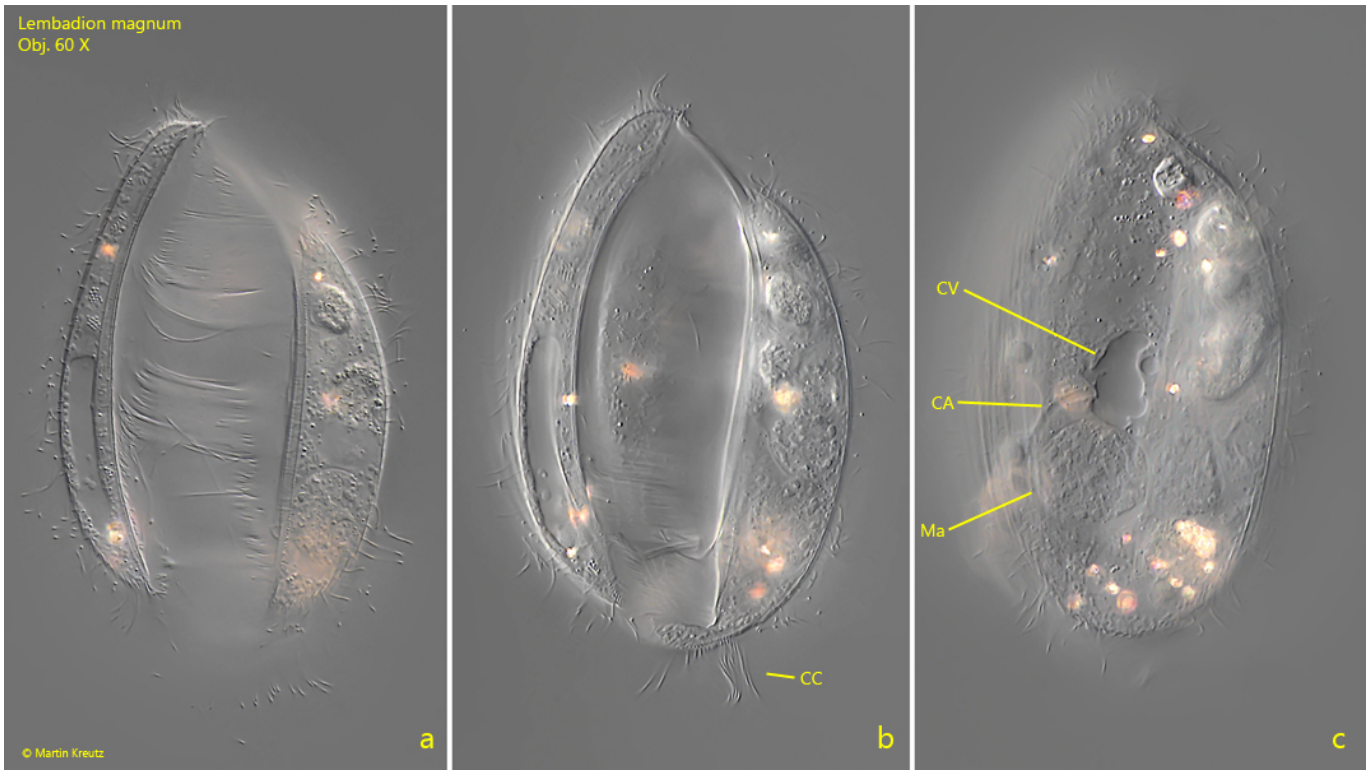


Fig. 2 a-c: *Lembadion magnum.* L = 110 µm. Ventral view of a second freely

swimming specimen in three focal planes. CA = channel between contractile vacuole and ventral excretion porus, CC = tuft of caudal cilia, CV = contractile vacuole, Ma = macronucleus. Obj. 60 X.

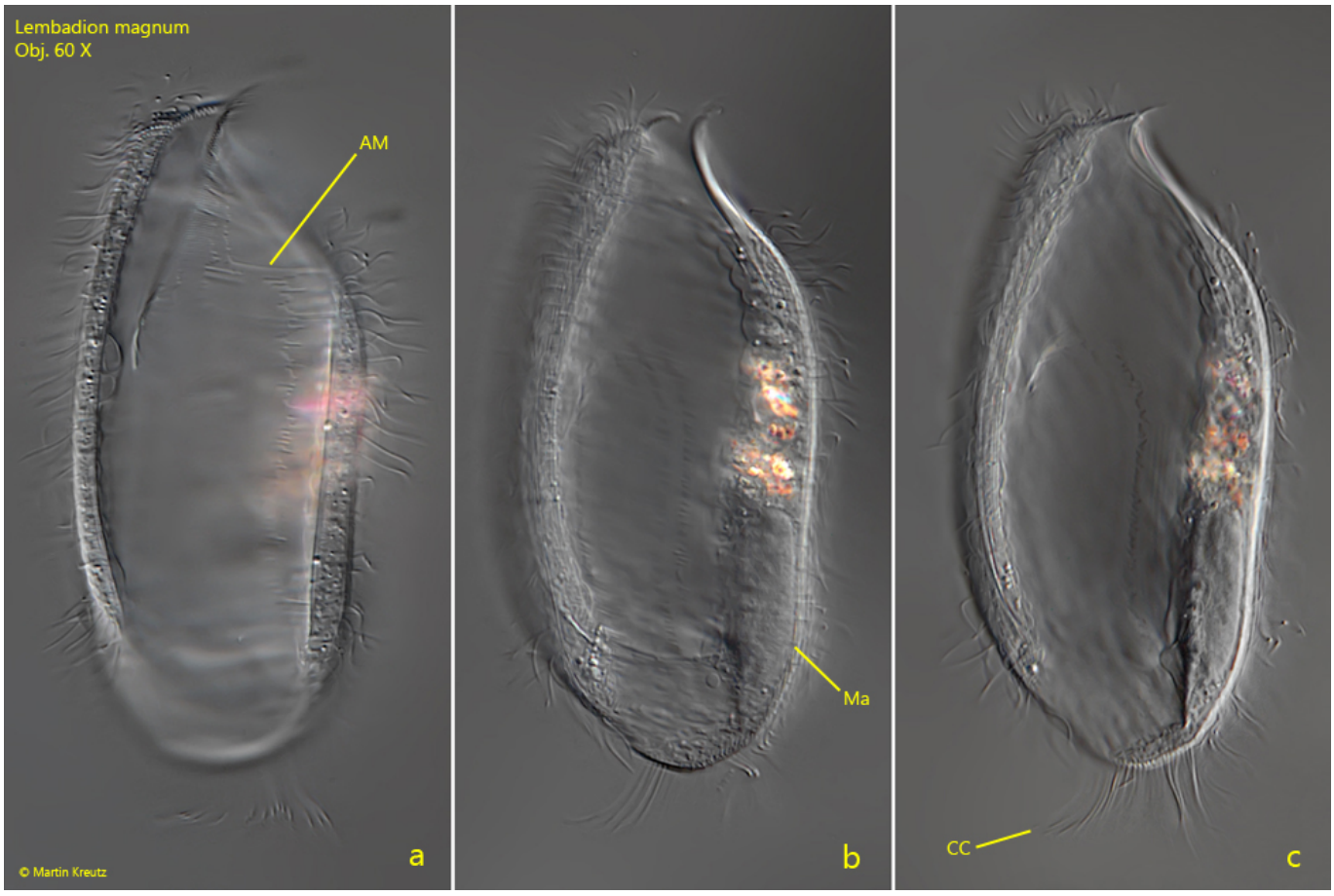


Fig. 3 a-c: *Lembadion magnum.* L = 160 µm. Ventral view of a third freely swimming specimen in three focal planes. AM = adorale membranelle, CC = tuft of caudal cilia, Ma = macronucleus. Obj. 100 X.

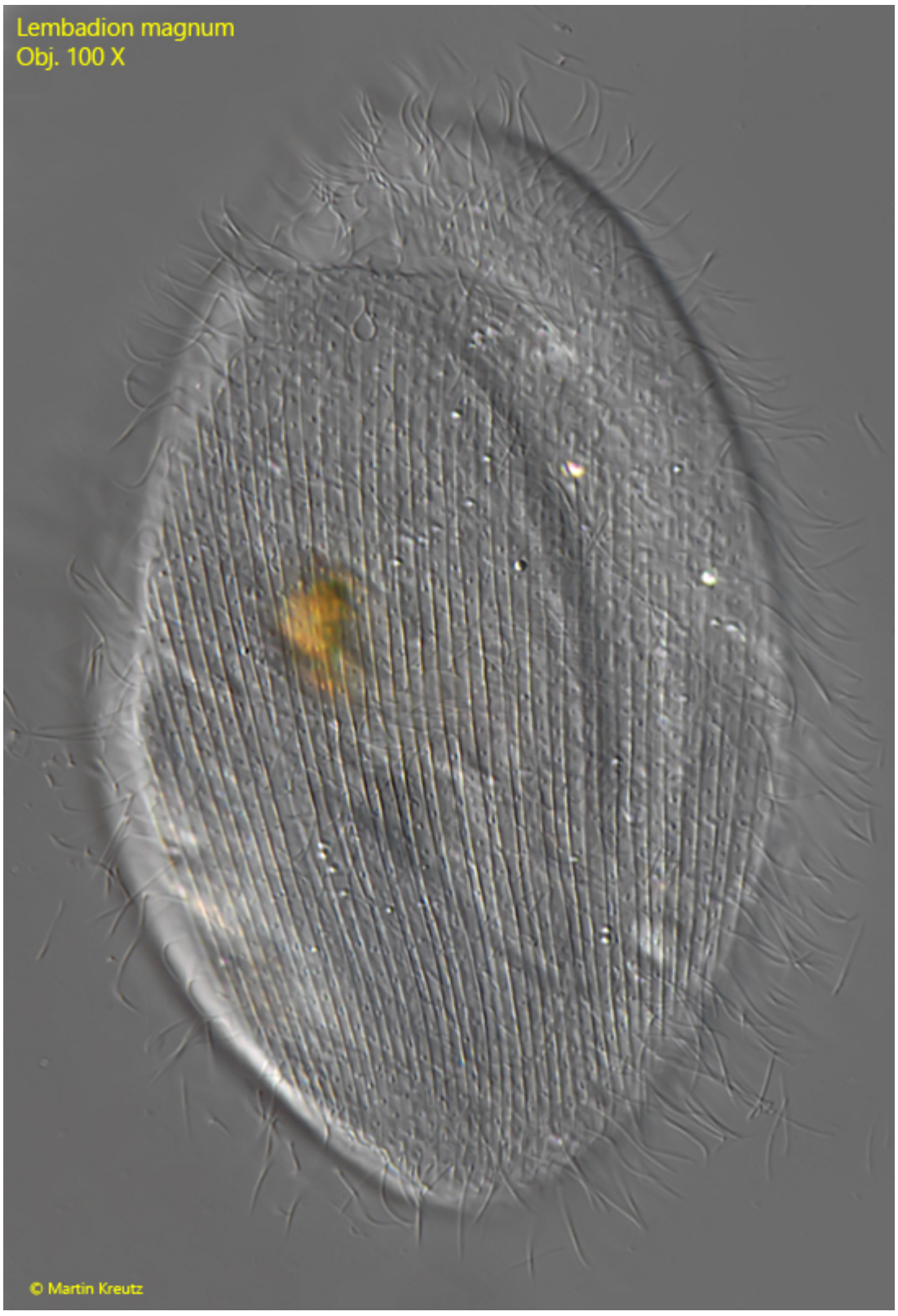


Fig. 4: *Lembadion magnum.* Dorsal view of a slightly squashed specimen with the longitudinal striation of the pellicle. Obj. 100 X.

Fig. 5: *Lembadion magnum.* Dorsal view of a slightly squashed specimen with focal plane on the channel (CH) connecting the contractile vacuole (CV) with the ventrally located excretion porus. Obj. 100 X.